U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

DETERMINATION OF NEPA ADEQUACY (DNA)

NUMBER: DOI-BLM-CO-110-2012-0006-DNA

CASEFILE/PROJECT NUMBER: COC-56835

PROJECT NAME: EnCana 2 new APDs on new well pad (L16 498)
DH07A-9 L16 498
DH04A-17 L16 498

LEGAL DESCRIPTION: T4S, R98W, SENW Section 16

APPLICANT: EnCana Oil and Gas (USA) Inc.

ISSUES AND CONCERNS: Relevant to this action (DOI-BLM-CO-110-2012-0006-DNA) and subsequent to approval of the parent document (CO-WRFO-03-187-EA), the greater sage-grouse (formerly a BLM-sensitive species) has gained candidate status under the Endangered Species Act and the Brewer's sparrow (former attention as Partners in Flight priority species) is now considered a BLM-sensitive species. A Cultural Survey was completed by Metcalf Archeologists, December 2003.

DESCRIPTION OF PROPOSED ACTION: The White River Field Office (WRFO) received two Applications for Permit to Drill (APDs) on 7/28/11 proposing to construct pad L16-498. A portion of the pad surface is proposed on Bureau of Land Management (BLM) land and a portion is located on private surface owned by Slash EV Ranch LLLP. Approximately 3.8 acres (57 percent) of the wellpad disturbance will be on private land and approximately 2.8 acres (43 percent) of the wellpad disturbance will be on BLM land. Minerals are Federal mineral estate. An access road approximately 260 ft x 30 ft (0.20 acres) would be constructed off of BLM road 1014 (BLM land). A pipeline (+/- 280 ft x 50 ft = 0.30 acres) would be constructed adjacent to the access road and tie into an existing pipeline located along BLM road 1014 (BLM land). Upon completion of pipeline construction the surface would be reclaimed. Total disturbed surface area of the pad construction would be 6.6 acres and the total disturbance acres for the entire project is 8.20 acres. Disturbance acres associated with the project are illustrated in Table 1.

Table 1. Pad Dimensions and Acres Disturbed for the Proposed Well Pad, Access Road, and Pipeline.

Well Pad	Dimensions (FT)	Disturbance[a] (Acres)	Access Road Dimensions (FT)	Disturbance[a] (Acres)	Pipelines Dimensions (FT)	Disturbance[a] (Acres)
L16-498	664 x 250	6.6	260 x 30	0.20	280 x 50	0.30
				Total Acres Disturbed[b]		**8.20**

[a] Estimate includes total acres disturbed for pad surface and overburden.
[b] Estimate includes total acres disturbed for well pad, proposed access road and pipeline corridor.

Design Features:

Details of the Proposed Action From EnCana's Surface Use Plan:

Existing Roads:

- The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location. Excessive rutting or other surface disturbance will be avoided.
- Route to get to the proposed location:
    - Proceed in a westerly, then southerly direction from Meeker, Colorado along Rio Blanco County Road (RBC) 13 approximately 22.7 miles to the junction of RBC 13 and Piceance Creek Road (RBC 5) to the west. Turn right and proceed in a westerly, then southwesterly, then northwesterly direction approximately 23.1 miles to the junction of RBC 5 and Black Sulphur Creek (RBC 26) to the SW. Turn left and proceed in a SW direction approximately 1.7 miles to the junction of RBC 26 and Fawn Creek (RBC 29) to the SE. Turn left and proceed in a SE, the southerly direction approximately 0.7 miles to the junction of RBC 29 and RBC 87 to the SE. Turn left and proceed in a SE direction approximately 0.7 miles to the junction of RBC 87 and BLM Road 1014 to the SE.
- There are bar ditches along BLM Road 1014 and an existing cattleguard on BLM Road 1014 to the SW of the wellpad.

Planned Access Roads:

- The proposed access road is approximately 260 feet long with a maximum width of 30 feet of right-of-way and 18-22 feet of running surface, crowned and ditched and/or sloped and dipped.
- Roads will be designed and constructed using BLM Manual 9113 as a guide for operations.
- An 18 inch culvert on the NW edge of the proposed access road will be installed to control drainage on the proposed access road.
- The estimated surface disturbance for the access roads on this well pad will be approximately 0.20 acres.
- Gravel or other surfacing material may be used when necessary for soft road sections, steep grades, highly erosive soils, clay and silty soils and/or where all-weather access is required.
- If the well is a producer, EnCana will upgrade and maintain access roads as necessary to prevent soil erosion, and accommodate year round traffic.

- Road maintenenace - during the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and legal condition and will be maintained in accordance with the original construction standards. The access road will be kept free of trash during operations.
- The average grade on the access road will be no greater than six percent.
- The topsoil along the road will be stripped. Topsoil berms will be constructed generally parallel to the improved road.
- All cut and fill slopes will be seed bed prepped and revegetated.
- There are no major cuts and fills on this location.
- Dust will be controlled on the the roads and locations during construction and drilling by periodic watering of the roads and locations.

Location of Existing and/or Proposed Production Facilities:

- A dike will be constructed completely around any production facilities which contain fluids (i.e., production tanks, produced water tanks, etc.). These dikes will be constructed of compacted subsoil, be impervious, hold 110 percent of the capacity of the largest tank and be independent of the back cut.
- There will be a steel water line (size may be up to eight inches) and a six inch steel gas lift line for approximately 0.30 acres of disturbance. The pipelines will tie in to an existing pipeline along the south side of BLM Road 1014 in the SENW of Section 16, Township 4S, Range 98W.

Location and Type of Water Supply:

- The estimated amount of water used for construction,drilling, completion, fracing and dust abatement is 5,000 barrels fresh water for drilling and completions will use approximately 50,000 barrels of either fresh or recycled water. The routes the trucks will take if it becomes necessary to truck water would be the route indicated in the driving directions from Meeker in the "Existing Roads" section of this document.
- The water provider is EnCana. EnCana maintains numerous water rights in Piceance Creek/or its tributaries. Fresh water will likely come from EnCana's Industrial Rights in Ryan Ditch, decree #CA-166 and CA 624, please reference Case # 04CW059.

Source of Construction Materials:

- All construction material for this location and access road shall be borrowed material accumulated during the construction of the location sites and roads. The source of the material is located in the NESW and the SENW of Section 16, Township 4S, Range 98W.
- A three inch pit run will be used for a sub-base on road construction. Shale or Class 6 cap (1 ½ inch aggregate) material will be used for base course on roads and final cap on pads.
- There will be no additional fill required.
    - Total cut = 31,430 cubic yards.
    - Total fill = 18,690 cubic yards.
- The fill will be separated mechanically and placed in one to two foot lifts using a dozer and blade. A sheep's foot type drum compactor will be used to compact each lift and water will be added to obtain adequate moisture.

Methods of Handling Waste Materials:

- Produced fluids - liquid hydrocarbons produced during production operations will be confined to flowback tanks for a period not to exceed ninety days. It may also be recycled and used for drilling, completion or fracing for another well or location. Excess water

may be piped to EnCana's disposal well in the Eureka Unit 8816D P14 located in the SWESE of Section 14, Township 3 South, Range 97 West (on unit - no ROW required).

- Excess water may also be trucked to EnCana's commercial disposal facility: Danish Flats Environmental Service, Inc., 616 W. Monument St., Colorado Springs, CO 80905, (719)-598-9735. Disposal Site (Evaporation Facility) I-70 Exit 214 Cisco, UT. Water hauling will be done by either Knowles Trucking (970)-434-1912 or RNI Trucking (970)-250-6495.
- Sewage:
    - Self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of by P.T.I. Group USA; P.O. Box 670, Vernal, UT 84078, (435)-789-0872, and taken to the Clifton Land Farm.
- Garbage and other waste material:
    - Garbage, trash, and other waste materials will be collected in a portable, self-contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at either the Mesa County Landfill or the City of Rifle Garfield County Landfill. No trash will be burned on location.
- Cuttings Management:
    - EnCana will need a steel cuttings bin capable of containing cuttings from 16 wells. Cuttings bin will be located on the SW portion of the wellpad. Dimensions of the cuttings bin is 45 x 10 x 12 dimensions in feet.

Wellsite Layout:

- Topsoil is windrowed to perimeter for run-on-protection and terminal sediment containment. Windrowed topsoil maintains biological activity better than large stockpiles and ensures proper redistribution. The estimated depth of the topsoil will vary, but on average is approximately six inches.
- Soil Series on this pad is Starman Vandamore Complex 5.4 percent slope. The texture is channery loam or gravelly loam. The depth is shallow and it is highly erodible.
- In general, materials will be moved and returned according to a last out first in philosophy. No excessive rock was identified at the onsite.
- Methods of stabilization that will be employed on this pad are an erosion control blanket around the stockpile that surrounds the detention pond and the southeastern side of the wellpad. Vegetative buffers, a topsoil stockpile, and wattles are installed along the eastern and southern side of the the wellpad.
- This pad is likey to have a small amount of standing water. This pad is located on a small slope of about one to two percent grade to help guide any overland flow down to the detention pond. The pad is designed to contain stormwater. The design includes a filtration system to contain sediment.
- To control drainage EnCana has a berm that encompasses the perimeter of the NW of the pad and continues over the north end, the entire east side of the pad, and SE side. A cut slope diversion is located on the SW corner of the pad near the cuttings bin.
- For sediment control there are two sediment reservoirs. One is located at the NE corner and one on the SE corner of the wellpad. Slash is used along the NE corner to the SE corner near the cuttings bin to help contain sediment.
- The estimated surface disturbance for this wellpad is 6.6 acres.

Plans for Reclamation of the Surface:

- Interim Reclamation:
    - The portion of the location not needed for production facility/operations will be reclaimed within six months from the date of well completion, weather permitting. The pad will be reclaimed except the working area which is usually 100 feet of of wellheads and 10-15 feet around production equipment. Upon completion of the first permitted well EnCana will evaluate the economic viability of the area. Interim reclamation will apply to the anticipated two wellheads and production equipment. If the area is not economic or EnCana does not plan to return in a reasonable time frame, this pad will be reclaimed to the final reclamation standards.
    - Methods of stabilization employed on this pad during interim reclamation are vegetated buffers and wattles which will be installed along the eastern side of the wellpad.
    - To control drainage during interim reclamation a wide shallow swale will be installed at the toe where the fill was located if possible and/or a 3:1 slope trench and/or a new diversion berm.
    - For sediment control there are two sediment reservoirs along the NE corner and SE corner of the wellpad. These will be moved closer to the pad for interim reclamation. Slash will remain on the north and east sides of the pad as part of the Best Management Practice (BMP) layering system to help contain sediment.
    - Slash/brush will be pushed to the terminal edge of disturbance along probable discharge edges as vegetation sediment control during the life span of the site and kept in place to cold compost for final reclamation.
    - All cuttings/reserve pits and detention ponds will be closed as soon as possible. If there is a chance for toxicity to migratory birds, netting will remain until the pit is properly closed. No reserve pits are currently proposed and currently only have a proposed steel cuttings bin and no cuttings pit.
    - There will be no additonal fill required. Total cut = 31,430 cubic yards. Total fill = 18,690 yards.
    - The fill will be separated mechanically and placed in one to two foot lifts using a dozer and blade. A sheep's foot type drum compactor will be used to compact each lift with water being added to obtain adequate moisture.
    - At final reclamation all stormwater management BMPs for drainage, sediment and erosion will be removed because the only remaining potential pollution source via stormwater will be runoff sediment. All sediment will be managed through revegetation practices (seeding on contour, crimping straw on contour and/or erosion control hydro-mulch pocking and topsoil distribution. Perimeter wattles will remain until vegetation establishment meets minimum requirements.
    - For interim and final reclamation topsoil will be redistributed and disked. Front end loader will be used where accessible and hoe and dozers used where steep. All areas outside the work area will be reseeded according to the BLM recommendation for seed mixture of Native Seed Mix #7.
    - During interim and final reclamation of the site, fill material will be pushed into cuts and up over the backslope. Allowance to construct sediment traps/reservoirs to maintain compliance with the state. In dryland revegetation allowance is

requested to pock sites and/or rip on contour to create micro-catchments for water containment for seed establishment and reduce the erosion potential. Topsoil will be distributed evenly over the location and seeded according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

- Seedbed will be prepared by disking, then roller packing following the natural contours. Seed will be drilled and roller packed on contours at a depth that is specified for each seed type. In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil or broadcast seeded and hydromulched. Certified seed and certified weed free seed and straw will always be used.
- Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed areas(s). Segregation of topsoil material and replacement of topsoil in its respective position (last out, first in) method will assist in the reestablishment of soil health and productivity. Topsoil will also be placed on its respective slopes, i.e., oakbrush shrub and soil and pinyon juniper woodland soil will not be mixed. Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depression will be left that will trap water and form ponds, other than those required for reducing the erosion potential of slopes. All disturbed surfaces will be reseeded according to the BLM recommendation of native seed mix #7.
- In general, materials will be moved and returned according to a last out first in philosophy. No excessive rock was identified at the onsite.
- The estimated surface disturbance for this wellpad is +/- 6.6 acres. Proposed reclaimed pad surface is 2.2 acres.

Prevention and Detection:

- Before entering BLM lands, all construction, heavy or off-road equipment and transport (backhoes, trackhoes, dozers, blades, rollers, lowboys, equipment trailers, etc), pickup trucks, SUVs, vans, water trucks, pipe trucks, etc., shall be power washed to remove seeds, soil, and vegetative matter.
- All proposed project areas shall be inventoried prior to ground disturbing activities. If noxious weeds are found, they shall be treated (if timing is appropriate) or removed (if plants have formed seeds) prior to ground disturbing activities to limit weed seed production and dispersal. If the treatment timing is not appropriate for the weed species, ground disturbing activities may proceed.
- All disturbed surface shall be promptly revegetated with certified weed-free seed per agency policy. BLM policy is to use native species for revegetation. Exceptions my be granted under certain conditions, such as the use of non-invasive non-native forbs when native forbs are unavailable or unlikely to succeed due to adverse conditions. Also, non-native, non-perisistent sterile grasses may be used to provide ground cover for soil stabilization and weed suppression during temporary reclamation.
- Topsoil stockpiles shall be promptly revegetated to maintain soil microbe health and prevent weeds. Native or non-native, non-persistent sterile grasses may be used to seed stockpiles.

- Straw, hay or other mulch used in reclamation shall be certified weed-free.

Inventory and Mapping:

- The center points of List A and B weed infestations (with the exception of redstem filaree and quackgrass) shall be marked with a GPS unit, or GPS lines or polygons along or around weed infestations.
- A Noxious Weed Inventory record shall be completed each time a List A or B weed infestation is inventoried (with the exception of redstem filaree and quackgrass).
- Inventories for the presence of noxious weeds shall be conducted at least once early in the growing season for all areas disturbed by oil and gas exploration and development. Weeds shall be treated in an appropriate manner if found during inventories. Follow-up inventories and re-treatment during the same growing season may be necessary to provide additional control and/or eradication.

Weed Control:

- The operator shall implement the best available weed control techniques(s) at the appropriate times based on the life history of the weed species.
- A Pesticide Use Proposal (PUP) shall be approved by the BLM prior to use of herbicides on BLM lands.
- Only adjuvants and herbicides approved by the BLM shall be applied to BLM lands.
- A Pesticide Application record shall be filled out each time pesticides are applied to BLM lands. The operator shall maintain these records for a minimum of three years.
- All designated List A species and those List B species shall be immediately reported to the appropriate County, BLM and Forest Service Weed Manager.
- Herbicide use shall follow application rates, restrictions and warnings listed on the label.
- In situations where noxious weeds have escaped from the project area into adjacent sites, the infested areas shall be treated to prevent further expansion into uninfested areas and reinfestation of the treated area.
- The operator shall use pesticide applicators licenses by the Colorado Department of Agriculture.

Pipeline Reclamation:

- When the pipeline installation phase of the project is completed, the right-of-way will be restored as close as possible to pre-excavated grades and compaction. Topsoil will be redistributed as close to original salvage depths as possible. In areas with pre-existing rock surface material, the stored rock will be spread over the right-of-way to maintain a surface appearance to that of adjacent undisturbed terrain. Every effort will be made to install permanent erosion control measures after recontouring is complete. Any brush that was shredded will be spread evenly across the right-of-way. Seeding will take place with an approved seed mix and application rate. After seeding is complete the temporary BMPs will be replaced with permanent BMPs and monitored for any malfunctions. BMPs will continue to be inspected and maintained and any areas that do not have regrowth will be reseeded as necessary until final stabilization is achieved.

- Revegetation contractor is responsible for sediment and pollution control for preconstruction, construction, and reclamation activities. This includes but is not limited to sediment removal from bar ditches, sediment traps, culvert inlets, and culvert outlets. Reclamation will proceed as follows:
    - Finish grading, drainage, and stormwater control and soil preparation per Stormwater Site Plans, surface roughening, landforming/landgrading and water bars.
    - Seedbed preparation: topsoil will be ripped to remove compaction up to a depth of 12 inches.
    - Hydraulic amendment, seed, erosion control blanket and erosion control mulch applications.
    - Broadcast amendments, drill seeding and certified weed free straw crimping on slopes 2.5:1 or less.
    - Hydraulic amendment, seed and erosion control mulch applications on remaining areas and any areas found to be deficient.
    - Specified access road seeding and stormwater repair and modification per pre-reclamation meeting.
    - Seeding contractor is now responsible for acquiring straw that is harvested in a manner to reduce volunteer winter wheat. Wood mulch will also be considered.
    - In cases of winter wheat germination above 30 percent canopy, it is the seeding contractor's responsibility to ensure the winter wheat does not go to head or compete with the desired species. If there is more winter wheat than desirable species, reseeding will be required.
- Final reclamation of the pipeline will be decided at the time of final reclamation per landowner requirements and directives. If for some reason EnCana decides to abandon the pipeline during final reclamation it would be cut and capped. The pipeline would be left in place to avoid causing surface disturbance.

Decision to be Made: The BLM will decide whether or not to approve the two APDs, access road and pipeline, and if so under what conditions.

PLAN CONFORMANCE REVIEW:

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: Page 2-5

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

REVIEW OF EXISTING NEPA DOCUMENTS:

List by name and date all existing NEPA documents that cover the Proposed Action.

Name of Document: White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS).

Date Approved: June 1996

Name of Document: CO-WRFO-03-187-EA, Final Figure Four Natural Gas Project Environmental Assessment

Date Approved: 12/3/2004

Name of Document: DOI-BLM-CO-110-2009-0062-DNA

Date Approved: 6/3/2009

NEPA ADEQUACY CRITERIA:

1. Is the new Proposed Action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document? If there are differences, can you explain why they are not substantial?
   Yes, the project is the same as the Proposed Action as analyzed in DOI-BLM-CO-110-2009-0062-DNA approved on 6/3/2009. Yes, the project is in the same analysis area and the geographic and resource conditions are sufficiently similar to those analyzed in the existing NEPA document.

2. Is the range of alternatives analyzed in the existing NEPA document appropriate with respect to the new Proposed Action, given current environmental concerns, interests, and resource values?
   Yes, two alternatives (Proposed Action and No Action Alternative) were analyzed in CO-WRFO-03-187-EA, Final Figure Four Natural Gas Project Environmental Assessment. There was an alternative considered but eliminated from detailed analysis which was the original company's proposed project. No reasons were identified to analyze this additional alternative. The Proposed Action and No Action Alternative are considered to be adequate and valid for the Proposed Action.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new Proposed Action?
   Yes, the existing NEPA analysis remains valid in light of recent changes to the greater sage-grouse (see wildlife comments as part of the answer to this question) as reviewed

and mitigation applied to reduce adverse effects in DOI-BLM-CO-110-2009-0062-DNA. This mitigation remains in full force and effect and is attached as an Appendix to this DNA. Based on the wildlife comments to this question it can be reasonably concluded that new circumstances would not substantially change the analysis of the new Proposed Action.
Wildlife answer to question 3: Relevant to this action and subsequent to approval of the parent document, the greater sage-grouse (formerly a BLM-sensitive species) has gained candidate status under the Endangered Species Act and the Brewer's sparrow (former attention as Partners in Flight priority species) is now considered a BLM-sensitive species. Former and more recent analysis (DOI-BLM-CO-110-2009-0062-DNA) of this project proposal and the measures applied to reduce adverse effects are consistent with the species' current management status, as well as the wildlife management agreement established under the State's 1298 Rule between EnCana and the Colorado Parks and Wildlife.

4. Are the direct, indirect and cumulative effects that would result from implementation of the new Proposed Action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?
   Yes, the direct, indirect and cumulative effects that would result from implementation of the new Proposed Action are the same as the Proposed Action in DOI-BLM-CO-110-2009-0062-DNA, with the exception of fewer wells proposed. The Proposed Action in DOI-BLM-CO-110-2009-0062-DNA approved eight APDs for natural gas wells. The eight approved APDs expired and EnCana reapplied for two APDs.

5. Is the public involvement and interagency review associated with existing NEPA documents adequate for the current Proposed Action?
   Yes, the public involvement and interagency review associated with existing NEPA documents is adequate for the current Proposed Action. The document was posted to the White River NEPA Register webpage on 11/15/2011.

INTERDISCIPLINARY REVIEW:
The Proposed Action was presented to, and reviewed by, the White River Field Office interdisciplinary team on 10/26/2011. A complete list of resource specialists who participated in this review is available upon request from the White River Field Office. The table below lists resource specialists who provided additional remarks concerning cultural resources and special status species.

Name	Title	Resource	Date
Michael Selle	Archaeologist	Cultural Resources, Native American Religious Concerns	10/27/2011
Lisa Belmonte	Wildlife Biologist	Special Status Wildlife Species	11/15/2011
Zoe Miller	Ecologist	Special Status Plant Species	11/15/2011

REMARKS:

Cultural Resources: The proposed well locations have been inventoried at the Class III (Pennefather-O'Brien 2003 compliance dated 1/16/2004) with no cultural resources identified in the well pad location where the new wells are proposed. There will be no new impacts to any known cultural resources. There would be no new irreversible or irretrievable loss to the regional archaeological data base.

Native American Religious Concerns: No Native American Religious Concerns are known in the area, and none have been noted by Northern Ute tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken.

Paleontological Resources: The proposed wells are located in an area generally mapped as the Uinta Formation (Tweto 1979) which the BLM, WRFO had classified as a PFYC 4/5 formation meaning it is known to produce scientifically noteworthy fossil resources (c.f. Armstrong and Wolny 1989). If it becomes necessary to excavate into the underlying rock formation for a purpose other than actually drilling the wells there is a potential to significantly impact scientifically noteworthy fossil resources. Any impacts to the fossil resources would constitute an irreversible and irretrievable net loss to the regional paleontological database.

Threatened and Endangered Wildlife Species: This location lies on the northern periphery of habitat associated with the Parachute/Piceance/Roan (PPR) sage-grouse population. Suitable habitat in the project area consists of small (<1 acre) mountain big sagebrush parks dispersed sparingly and discontinuously along narrow ridgelines dominated by mature stands of Utah serviceberry and Gambel oak. Habitat suitability and extent, as well as bird occupation, increase substantially two miles south (up-ridge). Although the Colorado Division of Wildlife (CDOW) documented the presence of a telemetered yearling female sage-grouse in a sagebrush park that would be encompassed by the pad in late July 2006, subsequent surveys to identify sage-grouse use of this ridgeline in 2008 revealed no indications of use within 1.5 miles (south) of this location over the past 1-2 years. Sage-grouse occupation of the project area and its immediate vicinity under present circumstances is considered peripheral. BLM and CDOW have been in close coordination with EnCana over the last four years concerning the influences of development on the PPR sage-grouse population. It is well established among those parties that vehicular travel across occupied sage-grouse habitats, particularly along the Divide Road and the Roan Plateau, constitutes one of the most imminent threats to the persistence of the PPR sage-grouse population. Consistent with this understanding, BLM and EnCana discussed and agreed to limit all vehicle access supporting the development of this well to Rio Blanco County (RBC) 69 north (down-ridge) of the proposed location. In doing so, vehicle traffic associated with the development of these wells would not involve occupied or suitable sage-grouse habitat and thereby avoid impacts to sage-grouse.

As discussed above, limited sagebrush habitat occurs in and around the proposed location. Although Brewer's sparrows likely occur in the smaller sage parks surrounding the project area, the lack of suitable habitat greatly limits the numbers of breeding pairs in the project area.

Threatened and Endangered Plant Species: Field surveys for sensitive plants and wetlands shall be conducted prior to any project-related surface disturbance (carried forward from DOI-BLM-

CO-110-2009-0062-DNA). If plant surveys do not find special status plant species (SSPS) within 100 meters of the project area then there should be no concerns associated with SSPS. As mentioned in the mitigation below, resources identified during these surveys shall be avoided or impacts to them shall be minimized through compliance with applicable surface stipulations, Conditions Of Approval or permit conditions. Possible compliance measures for SSPS found within 100 m of the project area may include:

- Notify the BLM of the SSPS populations and provide a plant survey report.
- Dust abatement measures and pad construction preferably after July.
- Signing of sensitive areas to avoid human intrusion.
- Weed management and control post construction and during pad production (see mitigation measures below in Noxious Weeds).

REFERENCES CITED:

Armstrong, Harley J., and David G. Wolny
1989 paleontological Resources of Northwest Colorado: A Regional Analysis. Museum of Western Colorado, Grand Junction, Colorado.

Pennefather-O'Brien, Elizabeth
2003 Report of the Class III Cultural Resource Inventory for the Figure Four GAP Proposed EnCana Oil and Gas (USA), Ind., Well Locations, Access Roads, and Pipeline, Rio Blanco and Garfield Counties, Colorado. Metcalf Archaeological Consultants, Inc., Eagle Colorado. (05-54-08: SHPO #MC.LM.R503)

Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

MITIGATION:

Site specific Conditions of Approval for the L16 pad

1. Applicable Mitigation brought forward from CO-WRFO-03-187-EA (Final Figure Four Natural Gas Project Environmental Assessment) is attached as Appendix A.
2. Applicable Mitigation brought forward from DOI-BLM-CO-110-2009-0062-DNA is attached as Appendix B.

COMPLIANCE PLAN: On-going compliance inspections and monitoring will be conducted by the BLM White River Field Office staff during and after construction. Specific mitigation developed in this document will be followed. The operator will be notified of compliance related issues in writing, and depending on the nature of the issue(s), will be provided 30 days to resolve such issues.

NAME OF PREPARER: Jay Johnson

CONCLUSION

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the Proposed Action and constitutes BLM's compliance with the requirements of the NEPA.

SIGNATURE OF AUTHORIZED OFFICIAL: _____
Field Manager

DATE SIGNED: 01/11/2012

ATTACHMENTS: Figure 1 – Route to EnCana's Proposed L16 498 well pad
Figure 2 – EnCana's Proposed L16 498 well pad
Figure 3 – EnCana's L16 498 Wellpad – Federal and Private Surface Distinction
Appendix A – Applicable Mitigation brought forward from CO-WRFO-03-187-EA (Final Figure Four Natural Gas Project Environmental Assessment)
Appendix B – Applicable Mitigation brought forward from DOI-BLM-CO-110-2009-0062-DNA

Note: The signed Conclusion in this DNA Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

Figure 1 – Route to EnCana's Proposed L16 498 well pad

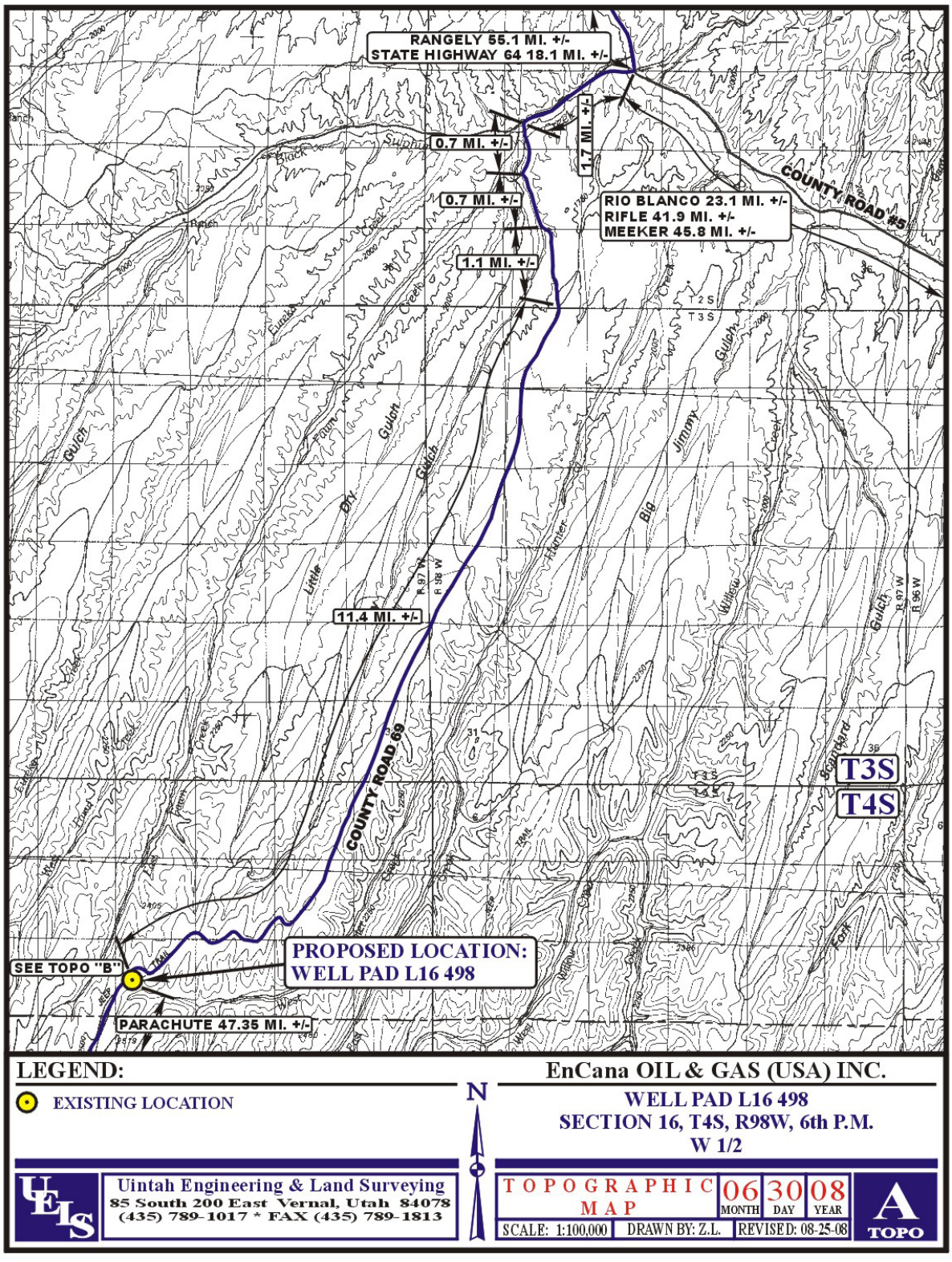


Figure 2 - EnCana's Proposed L16 498 well pad

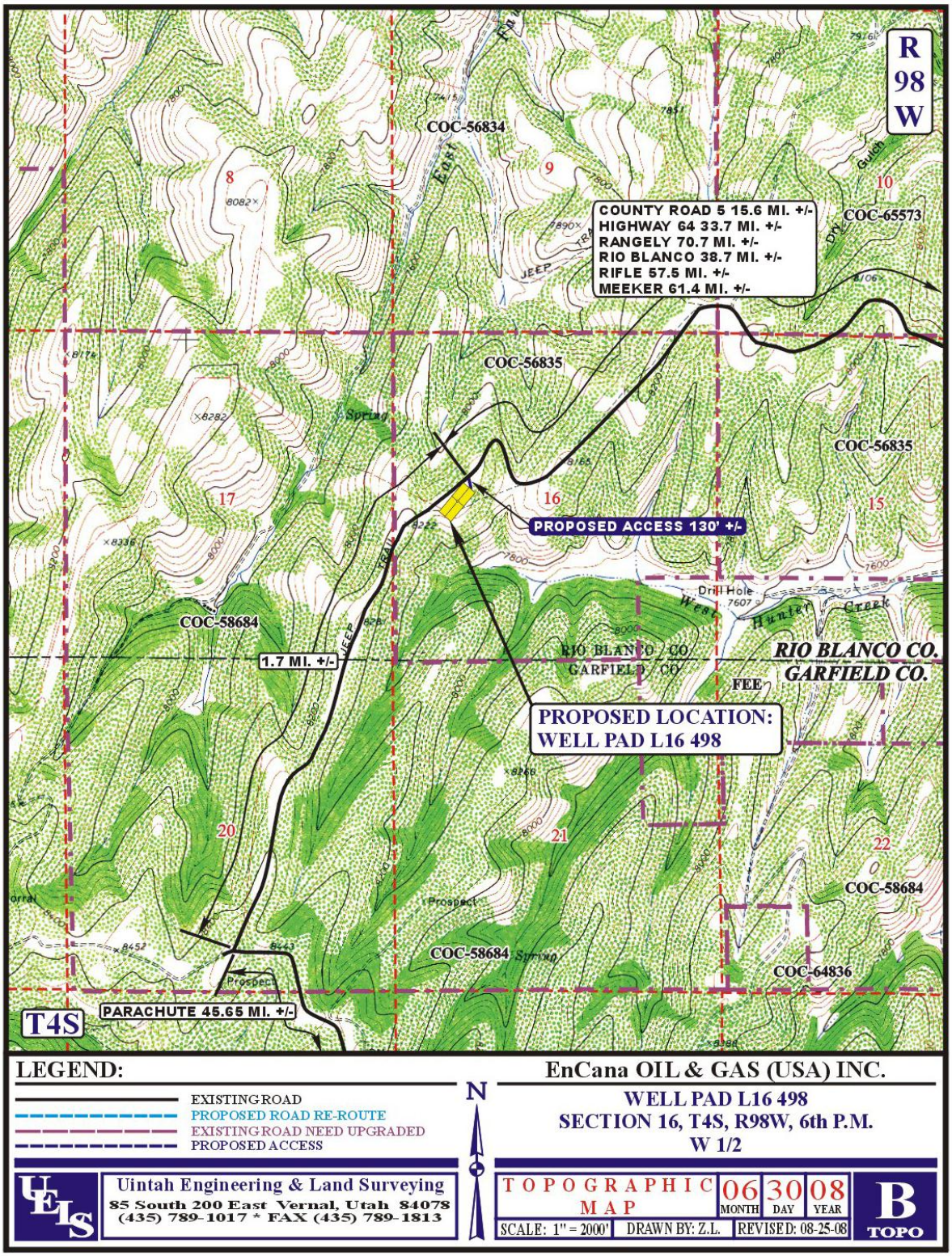
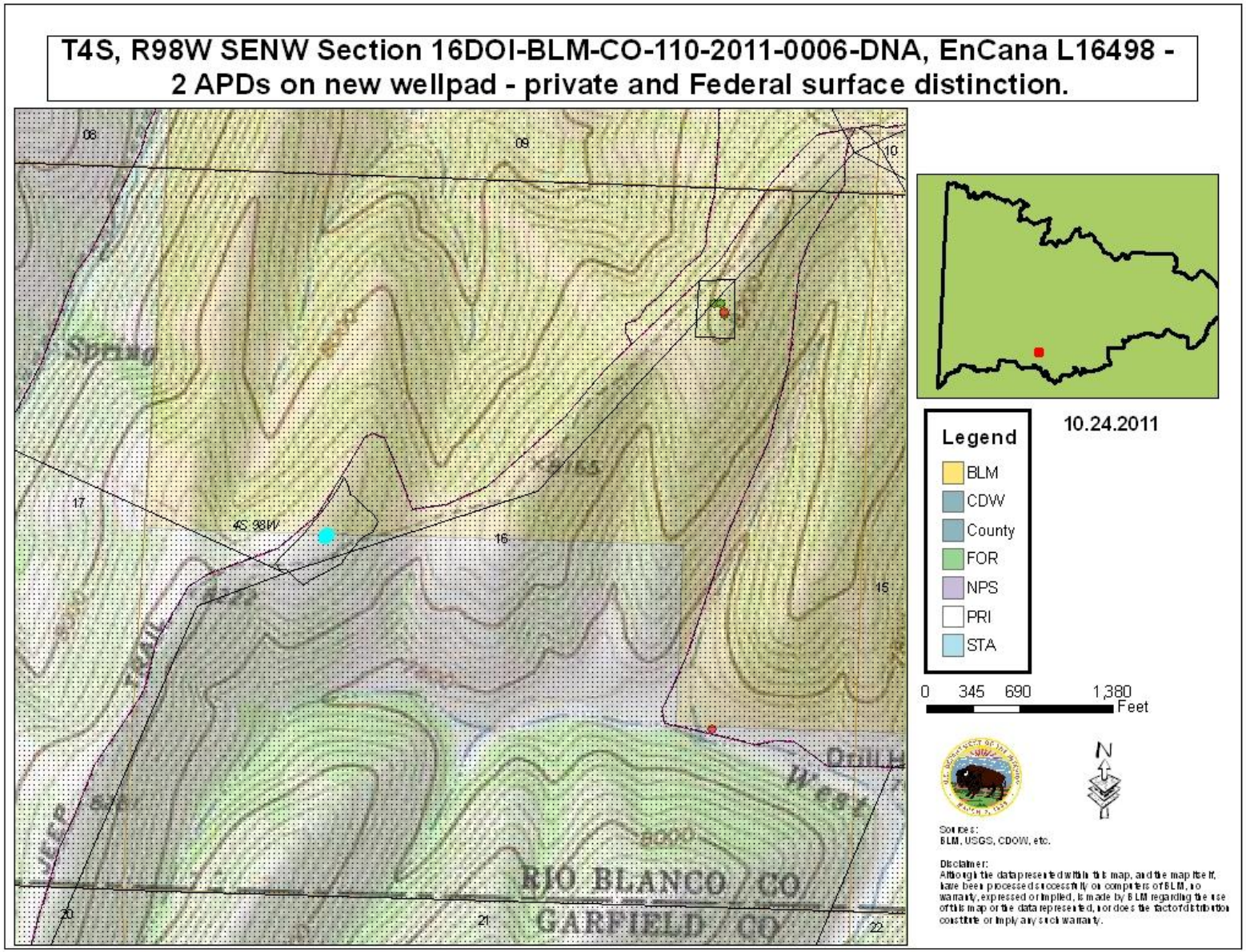


Figure 3 – EnCana's L16 498 Wellpad – Federal and Private Surface Distinction



Appendix A – Applicable Mitigation brought forward from CO-WRFO-03-187-EA (Final Figure Four Natural Gas Project Environmental Assessment)

Mitigation Measures:

1. All applicable surface stipulations and conditions of approval (COAs) described in Appendix A and B of the White River ROD/RMP BLM July 1, 1997 shall be implemented along with the following additional COAs:

Soils

2. Mitigation of the potential for petroleum contamination of soils shall include regular inspection of project facilities for the presence of leaks or spills. If soil contamination is discovered, the BLM and required agencies shall be notified immediately and remediation of the contamination conducted. For soils, this remediation could consist of excavation of the impacted soils, transport of the contaminated soils to a facility licensed to accept petroleum-contaminated soils, and backfilling of the excavation with clean fill.

Surface Water

3. Conduct regular inspection of well pads, including topsoil stockpiles (if present), cut- and fill-slopes, roads, and pipeline corridors for signs of erosion and runoff problems. Problem locations shall be stabilized and seeded as appropriate to prevent additional erosion and potential impacts to receiving waters, and regular inspection of sediment control structures, drainage structures, and culverts for signs of failure or malfunction and repair of those facilities.

Groundwater

4. The use of either produced water or reuse of drilling fluids for subsequent well drilling shall not occur before surface casing has been cemented in place and freshwater zones isolated and protected.
5. Conduct regular inspection of project facilities containing hydrocarbons, such as tanks, wellheads, and above-ground piping to identify any potential leaks.

Air Quality

6. Mitigation of air quality impacts shall be accomplished through the permitting of all regulated air pollution sources through the Colorado Department of Public Health and Environment, Air Pollution Control Division. The construction and operating permitting processes, where applicable (compressor engines, large glycol dehydration units), typically require the use of clean burning engines and emissions controls to reduce air pollution emissions and impacts to air quality.
7. To reduce the emission of fugitive dust from access roads in the Project Area, routine road watering and/or application of magnesium chloride shall be carried out when the roads are dry.

Noise

8. All compressors shall be equipped with hospital type mufflers. In addition, if a compressor station is to be located closer than 400 feet to an existing residence or other sensitive receptor, it shall be sited to take advantage of naturally-occurring obstacles or shall be constructed with man-made obstacles in the direct path between the noise source and the receiver. These natural or man-made obstacles must be high enough to break the line-of-sight between the compressor station and the residence/noise receptor. Man-made obstacles can be tightly spaced wood fences (no gaps in the wood panels), concrete fences, or earthen berms.

Special Status Plants

9. Field surveys for sensitive plants and wetlands shall be conducted prior to any project-related surface disturbance. Resources identified during these surveys shall be avoided or impacts to them shall be minimized through compliance with applicable surface stipulations, COAs, or permit conditions. Surveys shall be conducted by a qualified botanist(s).
10. To reduce the potential for collection of sensitive plant species by third parties, access roads shall be closed to public access through installation of locked gates, where recommended by the BLM.

Noxious Weeds

11. EnCana and their contractors will power-wash all construction equipment and vehicles prior to the start of construction. Any construction or operational vehicles traveling between the project location and outside areas shall be power-washed on a weekly basis. This shall reduce the probability that invasive weed seeds shall be introduced into the Project Area from infested locations.
12. During the construction phase of the project, EnCana shall implement an intensive reclamation and weed control program after each segment of project completion. EnCana shall revegetate in all portions of well pads and the ROW not utilized for the operational phase of the project, as well as any sites within the Project Area determined necessary by the BLM. Reseeding shall be accomplished using native plant species indigenous to the Project Area. Post-construction seeding applications shall continue until determined successful by the BLM. Weed control shall be conducted through an Approved Pesticide Use and Weed Control Plan from the Authorized Officer. Weed monitoring and reclamation measures shall be continued on an annual basis (or as frequently as the Authorized Officer determines) throughout the 20 to 30 year life of the project.

Rangeland Resources and Grazing

13. As part of its construction of drainage ditches at various locations in the Project Area, EnCana will install water catchments/earthen impoundments to collect and pond runoff to improve livestock range conditions.

Wetlands

14. Field surveys for wetlands shall be conducted and appropriate permits shall be obtained from the Corps of Engineer (COE) prior to any project-related surface disturbance. Wetlands and associated riparian vegetation identified during these surveys shall be avoided or impacts to them shall be minimized through compliance with applicable surface stipulations, COAs, or permit conditions. Surveys shall be conducted by a qualified botanist or wetland ecologist.

Wildlife

15. All EnCana and contract employees shall be prohibited from carrying firearms or bringing dogs to the Project Area.
16. In order to reduce incidents of illegal kill and harassment of wildlife, all EnCana personnel and contract employees shall be instructed on BLM regulations and state wildlife laws. Personnel shall also be instructed at a pre-construction meeting about the nature of the wildlife species that occur on the work site, potential impacts to these species, and measures that shall be taken to avoid or minimize impacts.
17. EnCana shall utilize remote telemetry equipment to reduce the frequency of well site visits which will partially mitigate the potential for wildlife/vehicle collisions and effects of animal displacement due to increased traffic and human presence. After the bulk of drilling activity is complete, the use of remote telemetry shall reduce traffic volumes by 75% (4

roundtrips/day - 3 light trucks and 1 heavy truck), compared with approximately 16 trips/day in the Figure Four well field if telemetry were not used.

18. EnCana shall limit the unauthorized public use of access roads via gates/barriers to minimize recreational use of previously isolated areas, thus reducing wildlife/human interactions and potential conflicts. Gates shall be placed at BLM property boundaries and at ridgeline access points. Vehicular access on gated roads shall only be allowed for EnCana employees and contractors visiting wells sites, and by grazing allotment holders. Vehicular access on restricted roads (i.e., BLM-administered lands or through agreements with private landowners) by allotment holders shall only be allowed during authorized grazing use periods for livestock maintenance and transportation. No additional vehicle access (e.g., hunting access) shall be allowed on these properties without BLM permission. Foot travel on BLM lands shall be allowed to all area visitors, however.
19. The effects of elk and mule deer habitat reduction shall be partially mitigated through interim reclamation of pipeline ROWs and unutilized well pad areas by planting native herbaceous and shrub seed mixtures beneficial to these species. Methods of reclamation are discussed in detail in Chapter 2.

Water Fowl, Migratory, and Upland Game birds

20. In order to reduce the possibility of exposure to waste water and drilling fluids, all reserve pits shall be netted to prevent birds from entering contaminated waters. According to the United States Fish and Wildlife Service (USFWS), a maximum mesh size of 1 1/2 inches will allow for snow-loading and will exclude most birds. Netting should be suspended a minimum of 4 to 5 feet from the surface of the pond to prevent the net from sagging into the pond during heavy snow-loads. Side nets shall also be used to prevent ground entry of waterfowl, upland game birds, and other wildlife species.

Raptors

21. EnCana or subsequent operator/s shall be responsible for an annual raptor nest inventory in the Figure Four Project Area in areas potentially influenced by drilling and construction activities. The raptor nest inventory shall be completed between April and June of each year. This inventory shall consist of ground surveys to document the activity of previously identified raptor nests as well as to potentially identify additional nests. Data from these annual surveys shall then be provided to EnCana, the USFWS, and the BLM.
22. EnCana shall commit to retaining live trees and snags within the Project Area as hunting perches for raptors. Prey species also use trees and snags as nesting areas, food sources, and over-wintering habitat. EnCana shall reclaim disturbed areas and obliterate roads as soon as possible following construction, operation, and completion of project activities.

Greater Sage-Grouse

23. Based on the existing and potential sage-grouse habitats within and near the Project Area, the following measures shall be implemented to mitigate some of the effects of the Proposed Action on sage-grouse brooding and nesting habitat, as well as leks located within 4 miles of the Project Area:

    Direct Habitat Loss

    - All roads and well pads in designated sage-grouse habitat will be minimized to disturb the least amount of habitat.
    - EnCana shall commit to an interim/post production reclamation program designed to re-establish sagebrush, as well as forb species in all disturbed areas throughout the Project Area. Interim reclamation shall consist of both replanting sagebrush and forbs in

disturbed areas as well as treatment/conversion of other brush communities (i.e., serviceberry, oak) to sagebrush. Specific habitat goals will be determined by the BLM.

- EnCana shall commit to an off-site mitigation program to compensate for unavoidable disturbances to sage-grouse winter range, as well as nesting (sagebrush steppe habitat) and brooding habitat (riparian habitat). The specific components of the off-site mitigation program were developed by the BLM and the Colorado Division of Wildlife (CDOW) and are as follows:
- EnCana shall contribute $17,000 per year for 3 consecutive years (likely beginning in 2006) to cooperatively fund an evaluation of sage-grouse habitat in Piceance Basin and on the Roan Plateau. The study shall involve hiring summer technicians to obtain and compile baseline information into a Piceance Basin sage grouse habitat assessment to include canopy cover, herbaceous ground cover, plant composition, effective height, and identification of wet areas. This study will involve use of the Daubenmire Method and other measurement techniques and will tell biologists what exists on the ground, what to treat in the future, and how to treat it.
- EnCana will provide an additional $10,000 per year for the life of the field to cooperatively fund habitat improvement projects for sage-grouse to include mechanical and burning treatments, fencing, and habitat evaluations, depending on the prerogative of BLM and CDOW for specific sites. Efforts will be made to make the habitat improvements within or adjacent to the Figure Four Unit. However, this $10,000 may also be used for off-site mitigation habitat manipulations in different areas of grouse use within the Piceance Basin and Roan Plateau, including, but not limited to, the Magnolia area.
- These mitigation requirements apply to EnCana as well as any successive owner/operator of this lease for the operational life of the field. These figures were derived from an estimate of what is needed to provide reasonable and effective habitat assessment and treatment to maintain the sage-grouse population in the Piceance Basin through the period of this field development and operation. It sets aside the need for ongoing complex calculations of sage-grouse habitat directly and indirectly impacted by this development. These measures do not preclude special reclamation techniques applied to surface disturbance or the advantageous movement of pads, roads and other infrastructure derived from on-site visits.

Disturbance and Displacement

- No ground-disturbing activities shall occur in Sections 7, 19-20, 26-29, and 34-35 from March 1 to July 15. Light non-ground disturbing activities and off road vehicle use associated with gas development activities shall be subject to prior BLM authorization and special daily limitations (see below). Routine on-road vehicle traffic within this area from March 1 to July 15 shall be minimized to the extent practicable and limited to well maintenance and monitoring activities.
- To minimize adverse effects to sage-grouse from increased hunting and recreational traffic due to increased road surfaces in the Project Area, numerous gates shall be installed on access roads to prevent unauthorized vehicular and ATV travel. These gates shall be placed at 16 locations, primarily along BLM property boundaries and adjacent to ridgeline access points. Vehicular access on gated roads shall only be allowed for EnCana employees and contractors visiting wells sites, and by grazing allotment holders. Vehicular access on restricted roads (i.e., BLM-administered lands or through agreements

with private landowners) by allotment holders shall only be allowed during authorized grazing use periods for livestock maintenance and transportation. No additional vehicle access (e.g., hunting access) shall be allowed on these properties without BLM permission. Foot travel on BLM lands shall be allowed to all area visitors, however.

- EnCana shall utilize remote telemetry equipment to reduce the frequency of well site visits, which shall partially mitigate the potential for sage-grouse displacement due to vehicle traffic and human presence. The use of remote telemetry shall reduce well field traffic volumes by 75% (4 roundtrips/day - 3 light trucks and 1 heavy truck), compared with approximately 16 trips/day in the Figure Four well field if telemetry were not used.
- In those instances where activities are excepted from the NSO stipulation, or where authorization is otherwise not required, all activities, motorized and non-motorized, within 0.6 mile of a lek shall be excluded from the period of sunset the evening before to 2-hours after sunrise the next morning from March 1 to May 15th. Additionally, there shall be complete activity exclusions from 2-hours before sunset to 2-hours after sunrise during the period of peak hen attendance (as specified by the CDOW).
- In those instances where activities are excepted from the Timing Limitation or where authorization is otherwise not required, all repetitive activities, motorized and non-motorized, within 4 miles of a lek in nesting and early brood-rearing habitat shall be severely limited from 0.5-hour before sunrise to 2-hours after sunrise, and 1-hour before sunset to sunset from mid-April through mid-July.

Direct Mortality

- When well pads are constructed in or near sage-grouse habitat, all production facilities (tanks, sheds, and other structures) will be placed on the cut side of the well pad. This facility placement shall discourage raptors from using structures as roosting platforms, therefore decreasing potential predation on sage-grouse. Similarly, avoid placement of aerial power lines, communication facilities, and other elevated features in sage-grouse habitat to decrease potential raptor predation on sage-grouse. If impractical, bury pipelines or outfit/site/retrofit features to prevent/deter raptor perching.
- In order to reduce the possibility of exposure to waste water and drilling fluids, all reserve pits shall be netted to prevent sage-grouse from entering or consuming contaminated waters. According to the USFWS, a maximum mesh size of 1 1/2 inches will allow for snow-loading and will exclude sage-grouse and other bird species. Netting should be suspended a minimum of 4 to 5 feet from the surface of the pit to prevent the net from sagging into the pit during heavy snow-loads. Side nets shall also be used to prevent ground entry.
- All fences within 4 miles of a lek shall be fitted with visual devices and sited to minimize grouse collisions.
- To prevent vehicle collisions with sage-grouse, all roads in the Project Area shall have a 30 miles per hour speed limit.

Endangered Colorado River Fish

24. Under the Upper Colorado River Endangered Fish Recovery Program, a one-time fee of $15.93 per acre-foot is required to compensate for impacts resulting from the depletion. Therefore a one-time fee of $1,991.25 shall be paid to the National Fish and Wildlife Foundation. This money shall be used along with other funds to provide habitat improvements to aid in species recovery. New water depletions above 125 acre-feet shall require additional consultation with the USFWS.

Cultural Resources

25. Site 5RB848 shall be avoided by relocation of the main gathering pipeline to the east side of Hunter Creek Road in the vicinity of the site. With implementation of this mitigation measure, no impact to Site 5RB848 shall occur.

Land Use

26. Where the project shall affect existing ROWs held by other parties, EnCana shall coordinate with the operator of the affected utility or ROW to minimize disruption of service.

Recreation

27. EnCana is encouraged to schedule and complete project-related construction, well drilling and completion activities prior to the start of the big game hunting seasons in the Vaughn Ranch and particularly the LOV Ranch permit areas to reduce the severity of impacts on permitted hunting outfitters who use these areas and to minimize the potential for displacement of game outside of permit areas. If project related activities are occurring they are encouraged to limit activities in the early morning and later afternoon hours during big game hunting seasons in permitted outfitter areas.
28. To promote safety for hunters and project workers alike during hunting season, warning signs will be posted along access roads serving active construction and drilling sites to warn hunters of the presence of workers and associated vehicle traffic in the area.

Visual Resources

29. All surface facilities shall be painted a natural earth tone color selected by the BLM to reduce visual contrast, unless prohibited by OSHA regulations.
30. Surface gas gathering pipelines shall not be painted, wrapped or coated, and shall be allowed to weather and blend with the natural environment.
31. Night lighting of facilities shall be kept to the minimum required and shall use shielded downcast fixtures to reduce off-site glare. Flaring of completed wells shall be carried out as quickly as possible and shall be screened from distant view using berms, frac tanks, or other equipment, and the natural topography to the extent practical.
32. Cut and fill slopes on well pads and access roads on steep side slopes shall have adequate erosion control materials (blankets, mats, bonded fiber matting, hydro-matting, etc.) installed with recommended seed mix, and color added to blend with surrounding vegetation to reduce contrast until vegetation is established.

Socioeconomics

33. To reduce the potential for wildfires and the demand for local fire protection services during construction and operation, all equipment, including welding trucks, shall be equipped with fire extinguishers and other fire suppression equipment as recommended by the BLM. Project-related employees and contractors shall be informed on the dangers of wildfires. In addition, EnCana will be encouraged to maintain defensible space around its well pads and other production facilities to minimize the potential for wildfires to damage or ignite fires on its facilities. While grasses and forbs shall be re-established in temporarily disturbed areas to minimize erosion, the re-growth of larger shrubs and trees shall be controlled adjacent to project facilities.

Appendix B (Applicable Mitigation brought forward from DOI-BLM-CO-110-2009-0062-DNA)

Wildlife

1. The project proponent must limit all vehicle traffic supporting the development of this location and its series of wells to Rio Blanco County Road 69 north (down-ridge) of the proposed location. Additionally, traffic associated with the development of this location or these wells will not use RBC 69 from the proposed location south (up-ridge) to its intersection with what is known as the Divide Road (BLM 1000) in T4S R98W section 20. The operator must inform and require its subcontractors, vendors, and support services, to the best of its ability, to abide by this Condition of Approval.
2. As a means of investigating and documenting the efficiency of voluntary vehicle constraints in the context of sage-grouse management, BLM has gained EnCana's consent to allow the BLM to install a traffic counter south of the location on private surface to complement a counter that will be placed on BLM surface north of the location. EnCana must, **notify** the designated NRS for this project at least **10 business days *before*** initiating pad construction for the L16 pad.

Cultural

3. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological or archaeological sites, or for collecting artifacts or fossils. If artifacts or fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
    - whether the materials appear to be of noteworthy scientific interest
    - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible).

    If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Paleontological

4. All excavations on BLM-owned surface into the underlying rock formation to level the well pad, drill core-holes, or construct access roads or associated pipelines must be monitored by an approved paleontologist at the time of excavation.

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

DECISION RECORD

PROJECT NAME: EnCana 2 new APDs on new well pad (L16 498)
DH07A-9 L16 498
DH04A-17 L16 498

DETERMINATION OF NEPA ADEQUACY NUMBER: DOI-BLM-CO-110-2012-0006-DNA

DECISION

It is my decision to implement the Proposed Action, as mitigated in DOI-BLM-CO-2012-0006-DNA, authorizing the construction and maintenance of the L16 498 wellpad and associated road, pipeline and the drilling, maintenance and operation of the DH07A-9 L16 498 and DH04A-17 L16 498 wells.

Mitigation Measures

Appendix A – Applicable Mitigation brought forward from CO-WRFO-03-187-EA (Final Figure Four Natural Gas Project Environmental Assessment)

1. All applicable surface stipulations and conditions of approval (COAs) described in Appendix A and B of the White River ROD/RMP BLM July 1, 1997 shall be implemented along with the following additional COAs:

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2. Mitigation of the potential for petroleum contamination of soils shall include regular inspection of project facilities for the presence of leaks or spills. If soil contamination is discovered, the BLM and required agencies shall be notified immediately and remediation of the contamination conducted. For soils, this remediation could consist of excavation of the impacted soils, transport of the contaminated soils to a facility licensed to accept petroleum-contaminated soils, and backfilling of the excavation with clean fill.

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3. Conduct regular inspection of well pads, including topsoil stockpiles (if present), cut- and fill-slopes, roads, and pipeline corridors for signs of erosion and runoff problems. Problem locations shall be stabilized and seeded as appropriate to prevent additional erosion and potential impacts to receiving waters, and regular inspection of sediment control structures, drainage structures, and culverts for signs of failure or malfunction and repair of those facilities.

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6. Mitigation of air quality impacts shall be accomplished through the permitting of all regulated air pollution sources through the Colorado Department of Public Health and Environment, Air Pollution Control Division. The construction and operating permitting processes, where applicable (compressor engines, large glycol dehydration units), typically require the use of clean burning engines and emissions controls to reduce air pollution emissions and impacts to air quality.
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    – All roads and well pads in designated sage-grouse habitat will be minimized to disturb the least amount of habitat.
    – EnCana shall commit to an interim/post production reclamation program designed to re-establish sagebrush, as well as forb species in all disturbed areas throughout the Project Area. Interim reclamation shall consist of both replanting sagebrush and forbs in disturbed areas as well as treatment/conversion of other brush communities (i.e., serviceberry, oak) to sagebrush. Specific habitat goals will be determined by the BLM.
    – EnCana shall commit to an off-site mitigation program to compensate for unavoidable disturbances to sage-grouse winter range, as well as nesting (sagebrush steppe habitat) and brooding habitat (riparian habitat). The specific components of the off-site mitigation program were developed by the BLM and the Colorado Division of Wildlife (CDOW) and are as follows:
    – EnCana shall contribute $17,000 per year for 3 consecutive years (likely beginning in 2006) to cooperatively fund an evaluation of sage-grouse habitat in Piceance Basin and on the Roan Plateau. The study shall involve hiring summer technicians to obtain and compile baseline information into a Piceance Basin sage grouse habitat assessment to include canopy cover, herbaceous ground cover, plant composition, effective height, and identification of wet areas. This study will involve use of the Daubenmire Method and other measurement techniques and will tell biologists what exists on the ground, what to treat in the future, and how to treat it.
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Disturbance and Displacement

- No ground-disturbing activities shall occur in Sections 7, 19-20, 26-29, and 34-35 from March 1 to July 15. Light non-ground disturbing activities and off road vehicle use associated with gas development activities shall be subject to prior BLM authorization and special daily limitations (see below). Routine on-road vehicle traffic within this area from March 1 to July 15 shall be minimized to the extent practicable and limited to well maintenance and monitoring activities.
- To minimize adverse effects to sage-grouse from increased hunting and recreational traffic due to increased road surfaces in the Project Area, numerous gates shall be installed on access roads to prevent unauthorized vehicular and ATV travel. These gates shall be placed at 16 locations, primarily along BLM property boundaries and adjacent to ridgeline access points. Vehicular access on gated roads shall only be allowed for EnCana employees and contractors visiting wells sites, and by grazing allotment holders. Vehicular access on restricted roads (i.e., BLM-administered lands or through agreements with private landowners) by allotment holders shall only be allowed during authorized grazing use periods for livestock maintenance and transportation. No additional vehicle access (e.g., hunting access) shall be allowed on these properties without BLM permission. Foot travel on BLM lands shall be allowed to all area visitors, however.
- EnCana shall utilize remote telemetry equipment to reduce the frequency of well site visits, which shall partially mitigate the potential for sage-grouse displacement due to vehicle traffic and human presence. The use of remote telemetry shall reduce well field traffic volumes by 75% (4 roundtrips/day - 3 light trucks and 1 heavy truck), compared with approximately 16 trips/day in the Figure Four well field if telemetry were not used.
- In those instances where activities are excepted from the NSO stipulation, or where authorization is otherwise not required, all activities, motorized and non-motorized, within 0.6 mile of a lek shall be excluded from the period of sunset the evening before to 2-hours after sunrise the next morning from March 1 to May 15th. Additionally, there shall be complete activity exclusions from 2-hours before sunset to 2-hours after sunrise during the period of peak hen attendance (as specified by the CDOW).
- In those instances where activities are excepted from the Timing Limitation or where authorization is otherwise not required, all repetitive activities, motorized and non-motorized, within 4 miles of a lek in nesting and early brood-rearing habitat shall be severely limited from 0.5-hour before sunrise to 2-hours after sunrise, and 1-hour before sunset to sunset from mid-April through mid-July.

Direct Mortality

- When well pads are constructed in or near sage-grouse habitat, all production facilities (tanks, sheds, and other structures) will be placed on the cut side of the well pad. This facility placement shall discourage raptors from using structures as roosting platforms,

therefore decreasing potential predation on sage-grouse. Similarly, avoid placement of aerial power lines, communication facilities, and other elevated features in sage-grouse habitat to decrease potential raptor predation on sage-grouse. If impractical, bury pipelines or outfit/site/retrofit features to prevent/deter raptor perching.

- In order to reduce the possibility of exposure to waste water and drilling fluids, all reserve pits shall be netted to prevent sage-grouse from entering or consuming contaminated waters. According to the USFWS, a maximum mesh size of 1 1/2 inches will allow for snow-loading and will exclude sage-grouse and other bird species. Netting should be suspended a minimum of 4 to 5 feet from the surface of the pit to prevent the net from sagging into the pit during heavy snow-loads. Side nets shall also be used to prevent ground entry.
- All fences within 4 miles of a lek shall be fitted with visual devices and sited to minimize grouse collisions.
- To prevent vehicle collisions with sage-grouse, all roads in the Project Area shall have a 30 miles per hour speed limit.

Endangered Colorado River Fish

24. Under the Upper Colorado River Endangered Fish Recovery Program, a one-time fee of $15.93 per acre-foot is required to compensate for impacts resulting from the depletion. Therefore a one-time fee of $1,991.25 shall be paid to the National Fish and Wildlife Foundation. This money shall be used along with other funds to provide habitat improvements to aid in species recovery. New water depletions above 125 acre-feet shall require additional consultation with the USFWS.

Cultural Resources

25. Site 5RB848 shall be avoided by relocation of the main gathering pipeline to the east side of Hunter Creek Road in the vicinity of the site. With implementation of this mitigation measure, no impact to Site 5RB848 shall occur.

Land Use

26. Where the project shall affect existing ROWs held by other parties, EnCana shall coordinate with the operator of the affected utility or ROW to minimize disruption of service.

Recreation

27. EnCana is encouraged to schedule and complete project-related construction, well drilling and completion activities prior to the start of the big game hunting seasons in the Vaughn Ranch and particularly the LOV Ranch permit areas to reduce the severity of impacts on permitted hunting outfitters who use these areas and to minimize the potential for displacement of game outside of permit areas. If project related activities are occurring they are encouraged to limit activities in the early morning and later afternoon hours during big game hunting seasons in permitted outfitter areas.
28. To promote safety for hunters and project workers alike during hunting season, warning signs will be posted along access roads serving active construction and drilling sites to warn hunters of the presence of workers and associated vehicle traffic in the area.

Visual Resources

29. All surface facilities shall be painted a natural earth tone color selected by the BLM to reduce visual contrast, unless prohibited by OSHA regulations.
30. Surface gas gathering pipelines shall not be painted, wrapped or coated, and shall be allowed to weather and blend with the natural environment.

31. Night lighting of facilities shall be kept to the minimum required and shall use shielded downcast fixtures to reduce off-site glare. Flaring of completed wells shall be carried out as quickly as possible and shall be screened from distant view using berms, frac tanks, or other equipment, and the natural topography to the extent practical.
32. Cut and fill slopes on well pads and access roads on steep side slopes shall have adequate erosion control materials (blankets, mats, bonded fiber matting, hydro-matting, etc.) installed with recommended seed mix, and color added to blend with surrounding vegetation to reduce contrast until vegetation is established.

Socioeconomics

33. To reduce the potential for wildfires and the demand for local fire protection services during construction and operation, all equipment, including welding trucks, shall be equipped with fire extinguishers and other fire suppression equipment as recommended by the BLM. Project-related employees and contractors shall be informed on the dangers of wildfires. In addition, EnCana will be encouraged to maintain defensible space around its well pads and other production facilities to minimize the potential for wildfires to damage or ignite fires on its facilities. While grasses and forbs shall be re-established in temporarily disturbed areas to minimize erosion, the re-growth of larger shrubs and trees shall be controlled adjacent to project facilities.

Appendix B (Applicable Mitigation brought forward from DOI-BLM-CO-110-2009-0062-DNA

Wildlife

34. The project proponent must limit all vehicle traffic supporting the development of this location and its series of wells to Rio Blanco County Road 69 north (down-ridge) of the proposed location. Additionally, traffic associated with the development of this location or these wells will not use RBC 69 from the proposed location south (up-ridge) to its intersection with what is known as the Divide Road (BLM 1000) in T4S R98W section 20. The operator must inform and require its subcontractors, vendors, and support services, to the best of its ability, to abide by this Condition of Approval.
35. As a means of investigating and documenting the efficiency of voluntary vehicle constraints in the context of sage-grouse management, BLM has gained EnCana's consent to allow the BLM to install a traffic counter south of the location on private surface to complement a counter that will be placed on BLM surface north of the location. EnCana must, **notify** the designated NRS for this project-**10 business days *before*** initiating pad construction for the L16 pad.

Cultural

36. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological or archaeological sites, or for collecting artifacts or fossils. If artifacts or fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
    - whether the materials appear to be of noteworthy scientific interest
    - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible).

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

Paleontological

37. All excavations on BLM-owned surface into the underlying rock formation to level the well pad, drill core-holes, or construct access roads or associated pipelines must be monitored by an approved paleontologist at the time of excavation.

COMPLIANCE WITH LAWS & CONFORMANCE WITH THE LAND USE PLAN

This decision is in compliance with the Endangered Species Act, and the National Historic Preservation Act. It is also in conformance with the 1997 White River Record of Decision/Approved Resource Management Plan.

PUBLIC INVOLVEMENT

The document (DOI-BLM-CO-110-2012-0006-DNA) was posted to the White River NEPA Register webpage on 11/15/2011.

RATIONALE

The Proposed Action with the applied mitigation conforms with the White River Record of Decision and Approved Resource Management Plan, is consistent with the analysis of the "Final Figure Four Natural Gas Project Environmental Assessment" in Environmental Analysis CO-WRFO-03-187-EA and "Figure Four pad L16-498, (8) wells" in DOI-BLM-CO-110-2009-0062-DNA and constitutes BLM's compliance with the requirements of NEPA.

ADMINISTRATIVE REMEDIES

Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a Notice of Appeal must be filed in the office of the Authorized Officer at White River Field Office, 220 East Market St., Meeker, CO 81641 with copies sent to the Regional Solicitor, Rocky Mountain Region, 755 Parfet St., Suite 151, Lakewood, CO 80215, and to the Department of the Interior, Board of Land Appeals, 801 North Quincy St., MS300-QC, Arlington, VA, 22203. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals at the above address within 30 days after the Notice of Appeal is filed with the Authorized Officer.

SIGNATURE OF AUTHORIZED OFFICIAL: _____

Field Manager

DATE SIGNED: _____

(Signed by Kent E. Walter on 1/11/12)